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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,015	10/24/2003	William C. Phillips	1023-292US01	9353
28863 7590 05/04/2007 SHUMAKER & SIEFFERT, P. A. 1625 RADIO DRIVE SUITE 300 WOODBURY, MN 55125			EXAMINER HELLER, TAMMIE K	
			ART UNIT 3766	PAPER NUMBER
			MAIL DATE 05/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/693,015	Applicant(s) PHILLIPS ET AL.	
	Examiner Tammie Heller	Art Unit 3766	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-9,11-13,15-20 and 22-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,11-13,15-20 and 22-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed on February 12, 2007 has been received and considered. Claims 1, 2, 4-9, 11-13, 15-20, and 22-37 are now pending in the application.

Information Disclosure Statement

2. The information disclosure statement filed November 2, 2006 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

Response to Amendment

3. The affidavit filed on February 12, 2007 under 37 CFR 1.131 is sufficient to overcome the Stein reference. Therefore, the rejection of claims 1, 2, 17, 19, 20, 33, 35, and 36 under 35 USC 102(e) as being anticipated by Stein of the previous Office Action is withdrawn. Further, the rejection under 35 USC 103(a) of claims 4, 15, 16, 22, 31, and 32 under 103(a) as being obvious over Stein, claims 5-9, 11-12, 18, 23-28, 34 and 37 as being obvious over Stein in view of Lebel, and claims 13 and 30 under as being obvious over Stein in view of Stanton are withdrawn.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 4-9, 11-13, 15-20, and 22-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stanton et al. (U.S. Patent No. 6,249,703, cited by applicant) in view of Maeda et al. (U.S. 2002/0030630), herein Stanton in view of Maeda. Regarding claims 1, 2, 17, 19, 20, 33, and 35-37, Stanton discloses a patient programmer that includes an internal antenna 56 mounted within the housing and a battery bay indicated generally by battery cover 14 (see Figures 1 and 6). However, Stanton fails to disclose that the internal antenna defines an aperture and that the battery bay extends into the programmer in substantial alignment with the aperture. Maeda discloses a telemetric communication device that includes a loop antenna 2 that defines an aperture and a battery 1 that is positioned such that it is in substantial alignment with the aperture (see Figure 3). Maeda discloses that this configuration of the battery and antenna is utilized in order to facilitate a more isotropic configuration of the telemetric energy (see paragraph 33), thereby presenting a load to the internal antenna. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to configure the programmer of Stanton such that the internal antenna defines an aperture and the battery bay extends into the programmer in substantial alignment with the

aperture, as taught by Maeda, in order to facilitate a more isotropic configuration of the telemetric energy, and thereby present a load to the internal antenna.

6. Regarding claims 4 and 22, Stanton discloses that a 9-volt battery may be housed within the battery compartment (see col. 7, ln. 23). Therefore, the battery bay is sized to accommodate AAA batteries.

7. Regarding claims 5 and 23, Stanton discloses a first circuit board 50 and a second circuit board 52 that are disposed within housing 10 (see Figures 1 and 6). It can be seen from Figure 1 that housing 10 includes first and second housing members. Further, it is inherent that when the device of Stanton is constructed, the first and second circuit boards will be disposed within the first and second housing members.

8. Regarding claims 6 and 24, Stanton discloses that the housing includes a battery compartment cover 14 that acts as an access opening for placement of batteries (see col. 5, ln. 55).

9. Regarding claims 7 and 25, it can be seen from Figures 6 and 7 of Stanton that the internal antenna may be displaced from the circuit board and coupled via a connector.

10. Regarding claims 8, 9, 12, 26, 27, and 29, Stanton discloses that the internal antenna may be mounted on a circuit board 52 controlling telemetric operations while a display 32 may be disposed on a separate circuit board 50 (see Figure 7 and col. 8, ln. 23-33).

11. Regarding claims 11, 18, 28, and 34, Stanton disclose that the programmer may used with an implantable neurostimulator (see col. 1, ln. 27-32).

12. Regarding claims 13 and 30, Stanton discloses that an external antenna 28 may be coupled to the programmer via a cable (see Figure 1).

13. Regarding claims 15 and 31, examiner takes Official Notice that it is well known in the antenna art to construct an internal antenna from a plastic frame wound with conductive winding in order to enhance the noise immunity of the antenna. The conductive winding is wound such that the direction of the helix determines the type of signal (either right or left-handed) the antenna is able to receive. The antenna consequently only receives the signals for which it is designed and noise from other sources is eliminated. Therefore, it would have been obvious to one of ordinary skill in the antenna art to construct the antenna of Stein et al. from a plastic frame wound with conductive winding in order to further increase the noise immunity of the antenna. Applicant's attention is directed to U.S. Patent No. 3,683,389 to Hollis, Figure 1, where the coil/loop antennas 32 and 36 are wound on dielectric frame 28.

14. Regarding claims 16 and 32, examiner takes Official Notice that it is well known in the antenna art to use copper-braiding as a shielding mechanism for antennas to shield the electromagnetic field of the antenna and reduce electrical and electromagnetic interference caused by the antenna. Therefore, it would have been obvious to one of ordinary skill in the art to shield the antenna of Stein et al. using copper braiding in order to reduce electrical and electromagnetic interference and reduce antenna loading during transmission and reception. Applicant's attention is directed to U.S. Patent No. 2,203,517 to Beggs where shield 28 surrounds the loop antenna 3 wound on dielectric frame 27.

Conclusion

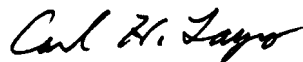
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammie Heller whose telephone number is 571-272-1986. The examiner can normally be reached on Monday through Friday from 7am until 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Layno can be reached on 571-272-4949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tammie K. Heller
Patent Examiner
Art Unit 3766



Carl Layno
Acting SPE
Art Unit 3766

CARL LAYNO
PRIMARY EXAMINER